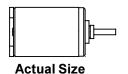
MicroMo® MOTORS

DC MicroMotors Series 1319

- Fits our Gearhead Series 14/1, 15/2, 15/3, 15/5, 15/8, (Metal Case)
- Available with Optional Rear Shaft for Encoder Mounting
- Samarium Cobalt Magnet System

Continuous Duty Ratings:⁽¹⁾

Speeds up to 12,000 rpm Torque up to .17 oz-in Output Power up to 1 Watts



Electrical Specifications:		@22°C (72°F)			
For Motor Type 1319T	003	006	012	015	024
Nominal Supply Voltage (Volts DC) Armature Resistance (Ohms) ±12% Maximum Output Power (Watts) ⁽²⁾ Maximum Efficiency (%) ⁽²⁾ No Load Speed (rpm) ±12% ⁽²⁾ No Load Current (mA) ±50% ⁽³⁾ Stall Torque (oz-in) ⁽²⁾ Friction Torque (at no load speed)(oz-in/Velocity Constant (rpm/Volt) Back EMF Constant (mV/rpm) Torque Constant (oz-in/A) Armature Inductance (mH)	3 1.8 1.18 72 14,900 45 .431 n) .011 5,100 .196 .265	6 6.0 1.41 71 16,300 30 .469 .014 2,800 .357 .483 .130	15 .489 .014	15 35 1.5 69 16,100 14 .506 .017 1,110 .901 1.219	24 120 1.12 68 15,500 7 .389 .014 669 1.49 2.025 2.055
Mechanical Specifications: Mechanical Time Constant (ms) ⁽²⁾ Armature Inertia (x10 ⁻⁴ oz-in-sec ²) Angular Acceleration (x10 ³ rad/sec ²) ⁽²⁾ Thermal Resistances (°C/W) Rotor to Case Case to Ambient	14 .038 110 10 54	14 .038 120 10 54	14 .038 130 10 54	14 .042 120 10 54	14 .034 120 10 54
Desire Time	Cintered/standers	1/	Dall/antional)	Droloada	d DD/antions

Bearing Type	Sintered(standard)	Ball(optional)	Preloaded BB(optional)
Shaft Diameter mm (in)	1.5	1.5	1.5
Maximum Shaft Loading (oz)			
Radial at 3,000 rpm (3mm from bear	ring) 4.3	18	18
Axial at 3,000 rpm	.72	1.8	1.8
Axial (static)	72	36	36
Shaft Play (measured at bearing) mm(in)		
Radial	≤ .03 (.0012)	≤ .015 (.0006)	≤ .015 (.0006)
Axial	≤ .2 (.0079) ¹	≤ .2 (.0079) [^]	0

Weight (oz) .39 All Types Maximum Rotor Temperature 125°C (257°F)

-30°C to 100°C (-22°F to 212°F) Motor Operating Temperature Range Special operating temperatures for -55°C to 125°C (-67°F to 257°F) available on request.

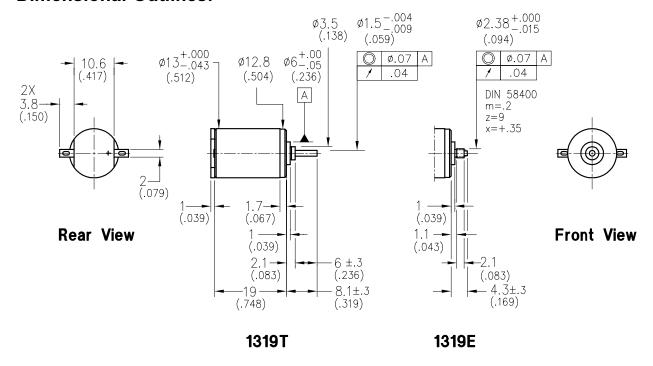
Direction of rotation is reversible and clockwise as seen from shaft end with red lead or solder tab marked + connected to the positive side of voltage supply.

⁽¹⁾Ratings are presented independent of each other. (2)Specified at nominal supply voltage.

⁽³⁾ Specified with shaft diameter = 1.5 mm at no load speed.

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Dimensional Outlines:



Dimensions are in mm (in.)
Dimensions with no tolerance indicated are as follows:

 For Dimensions:
 Tolerance

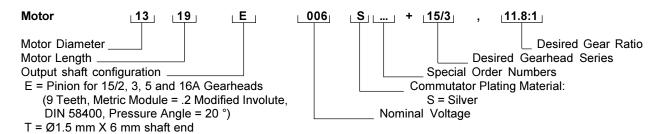
 Less than or equal to 6 mm
 ±.1 mm (.0039 in)

 Less than or equal to 30 mm
 ±.2 mm (.0079 in)

 Less than or equal to 120 mm
 ±.3 mm (.0118 in)

Ordering Information:

Example: To order a 6 volt, 1319 Motor intended to fit our 15/3 Gearhead, Specify:



Series 1319 is available with 5.9 in. long leads instead of solder tabs. Specify letter "L" in Special Order Number slot.